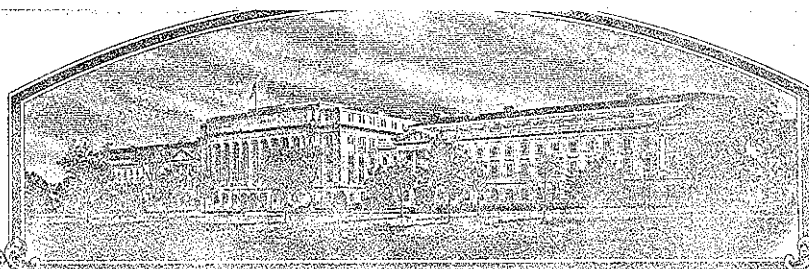


No.

8000004



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Rijk Zwaan Zaadteelt En Zaadhandel, B.V.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT OF 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

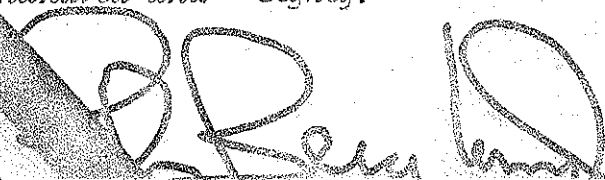
CAULIFLOWER

'Silver Star'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 18th day of December in the year of our Lord one thousand nine hundred and eighty.

Attest:


Commissioner
Plant Variety Protection Office
Grain Division



UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY Type 165		1b. VARIETY NAME <i>Silver Star</i> STAR RIGHT <i>Set 80/1029</i>		FOR OFFICIAL USE ONLY PV NUMBER 8000004	
2. KIND NAME Cauliflower		3. GENUS AND SPECIES NAME Brassica Oleracea L var. botrytis		FILING DATE 10-29-79	TIME 4:00 A.M.
4. FAMILY NAME (BOTANICAL) Cruciferae		5. DATE OF DETERMINATION 11th January 1975		FEE RECEIVED \$ 500.00	DATE 7-19-79
6. NAME OF APPLICANT(S) Rijk Zwaan Zaadteelt en Zaadhandel BV		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O.Box 40 2678 ZG De Lier Holland		8. TELEPHONE AREA CODE AND NUMBER 01745-3941	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) corporation		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Holland 18-8-1953		11. DATE OF INCORPORATION 18-8-1953	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☐ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?		
<input type="checkbox"/> YES <input type="checkbox"/> NO not applicable	<input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.) The Netherlands January 1978 november 1976			
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.) The Netherlands 6th June 1979			

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

4th July 1979
(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

6/61 62 100

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Re: Cauliflower *Silver Star* Type ~~165~~



RIJK ZWAAN
zaadteelt & zaadhandel bv

8000004

EXHIBIT A

184
801029

Origin and Breeding History of the variety:

Silver Star
1. Type ~~165~~ originated from a hand crossing in 1964 between own breeding material and white flowering variety Lukra.

2. Pure line selections were made on plant-type, maturity, uniformity and quality for 9 generations on trial fields in the Netherlands and Western Germany.

The genetic make-up of the variety was stabelized in the fifth generation. After that, production tests have been carried out under mass and line selection.

Silver Star
Type ~~165~~ appeared to be stable and uniform during the last 4 generations, both in our trials and official tests of N.A.K.G.

Within the limits of a crosspollinating cultivar no variants have been found.

EXHIBIT ^B~~D~~ Data Indicative of Novelty
_{Set 201029}

Cauliflower "Silver Star", Application No.

"Silver Star" most closely resembles "Snowball Y", but
matures about 5 - 7 days later.

Statement

We herewith state that for all comparison, we have used the variety Snowball Y as this is the most similar variety.

However, as the differences in the way of growing habit are rather large, both varieties are used side by side in commercial fields on large scale in the same growing period.

Statement

The comparative variety Snowball Y and Flora Blanca are as well as nearly all cauliflower varieties yellow blooming.

This variety is genetic pure white blooming.

In the indicated maingrowing area California planting from first of January, shows that this variety ^{Silver Star} ~~type 165~~ RZ was so selffrapping that tying was not necessary.

All other varieties like Snowball Y need tying.

EXHIBIT B

Botanical description of the variety

Silver Star
Cauliflower: ~~type 165~~

Silver Star
~~Type 165~~ is a result of a crossing between own breeding material and the white flowering variety Lukra.
It was developed in Holland and W. Germany.

In California it appears to be best adapted in harvesting period from May till September. In other areas it shows promising, but is still under research.

Silver Star
Because ~~Type 165~~ originated from cross(es) between different phenotypes it does not belong to any particular group of varieties (such as the late Alpha-group etc.)

As far as most suitable harvest period is concerned, it can best be compared with Snowball Y.

Differences are:

- *Silver Star*
~~type 165~~ has more erect and wavy foliage.
- *Silver Star*
~~type 165~~ has more of a dark blue-green foliage colour.
- *Silver Star*
~~type 165~~ is about 2-5 cm taller.
- curd diameter and depth are larger (c.q. 18 and 12 cm).
- curd is very tight more knobby and more dome shaped.
- Especially under relatively warm and dry conditions (more continental climates) it is better self-covering. *Silver Star*
~~Type 165~~ has less but larger heartleaves, that completely cover the curd and do not stand (or open) up under warm wheather conditions.
- It matures on average 1 week later than Snowball Y, in summer sowing a little less than a week.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY
CAULIFLOWER
(Brassica oleracea var. botrytis)

NAME OF APPLICANT(S) Rijk Zwaan Zaadteelt en Zaadhandel BV	VARIETY NAME OR TEMPORARY DESIGNATION Type 165 Silver Star 801029
ADDRESS (Street and No., or F.F.D. No., City, State, and ZIP Code) P.O. Box 40 - 2678 ZG De Lier Holland	FOR OFFICIAL USE ONLY PVPO NUMBER 8000004

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. or) when number is either 99 or less or 9 or less.

1. REGION OF ADAPTATION: (Where best adapted in the U.S.A.)

<input type="text" value="6"/>	1 = NORTHWEST	2 = NORTHCENTRAL	3 = NORTHEAST	4 = SOUTHEAST	5 = SOUTHWEST
	6 = MOST REGIONS				

2. SEASON: (Main crop)

<input type="text" value="3"/>	1 = LATE FALL - EARLY WINTER	2 = LATE WINTER - EARLY SPRING
	3 = LATE SPRING - EARLY SUMMER	4 = LATE SUMMER - EARLY FALL

3. MATURITY: (Days to 50% harvest)

<input type="text" value="0"/> <input type="text" value="7"/> <input type="text" value="3"/>	FROM TRANSPLANTS	<input type="text" value="1"/> <input type="text" value="6"/>	NO. DAYS HARVESTING PERIOD
<input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="0"/>	FROM DIRECT SEEDING		

4. PLANT HEIGHT: (At harvest)

<input type="text" value="2"/> <input type="text" value="2"/>	CM. FROM SOIL LINE TO TOP OF CURD		
<input type="text" value="0"/> <input type="text" value="2"/>	CM. TALLER THAN	<input type="text" value="3"/>	1 = EARLY ERFURT 2 = SUPER SNOWBALL A
<input type="text" value="0"/> <input type="text" value="2"/>	CM. SHORTER THAN	<input type="text" value="5"/>	3 = SNOWBALL Y 4 = VEITCH AUTUMN GIANT 5 = OTHER (Specify) Autumn Giant Flora Blanc

5. LEAVES:

<input type="text" value="2"/> <input type="text" value="3"/>	TOTAL NUMBER	<input type="text" value="7"/> <input type="text" value="2"/>	CM. AVERAGE LENGTH AT MID-POINT OF PLANT (Including Petiole)
		<input type="text" value="3"/> <input type="text" value="3"/>	CM. AVERAGE WIDTH AT MID-POINT OF PLANT
<input type="text" value="2"/>	1 = STRAIGHT MARGINS 2 = WAVY MARGINS	<input type="text" value="2"/>	1 = THIN VEINS 2 = THICK VEINS
<input type="text" value="1"/>	1 = MOSTLY SESSILE 2 = MOSTLY PETIOLATE 3 = EQUALLY SESSILE AND PETIOLATE		
<input type="text" value="3"/>	COLOR: 1 = LIGHT GREEN 2 = MEDIUM GREEN (Snowball No. 10) 3 = DARK GREEN (Lecert Group) 4 = BLUSH GREEN (November)	<input type="text" value="3"/>	1 = UPRIGHT, EXPOSE CURD 2 = INCURVED, PARTIALLY COVER CURD 3 = COMPLETELY COVER CURD (Self blanching)

6. CURD:

<input type="text" value="1"/> <input type="text" value="8"/>	CM. DIAMETER	<input type="text" value="1"/> <input type="text" value="2"/>	CM. DEPTH
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6. CURD:

8000004

<input type="checkbox"/> 1	1 = TIGHT	2 = LOOSE	<input type="checkbox"/> 3	SHAPE:	1 = FLAT	2 = SEMI-DOME
					3 = DOME	
<input type="checkbox"/> 2	1 = SMOOTH	2 = KNOBBY				
<input type="checkbox"/> 1	COLOR:	1 = BRIGHT WHITE	2 = CREAMY, DULL WHITE	<input type="checkbox"/> 1	1 = NO LEAVES IN CURD	2 = LEAVES IN CURD
		3 = PURPLE-GREEN				

7. DISEASE RESISTANCE: (0 = Not Tested; 1 = Susceptible, 2 = Resistant. Specify race if known)

<input type="checkbox"/> 0	BLACK SPOT	<input type="checkbox"/> 0	CLUBROOT
<input type="checkbox"/> 0	PHYTOPHTHORA ROOT ROT	<input type="checkbox"/> 0	WHITE BLISTER
<input type="checkbox"/> 0	BLACK ROT	<input type="checkbox"/> 0	BOTTOM ROT
<input type="checkbox"/> 0	CERCOSPORELLA LEAF SPOT	<input type="checkbox"/> 0	DOWNY MILDEW
<input type="checkbox"/> 0	POWDERY MILDEW	<input type="checkbox"/> 0	VERTICILLUM WILT
<input type="checkbox"/> 0	BLACK LEG	<input type="checkbox"/> 0	CAULIFLOWER MOSAIC
<input type="checkbox"/> 0	RING SPOT	<input type="checkbox"/> 0	TURNIP YELLOW MOSAIC
<input type="checkbox"/> 0	YELLOWS	<input type="checkbox"/> 0	WIRE STEM
<input type="checkbox"/> 0	OTHER (Specify) _____		

8. OTHER RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

<input type="checkbox"/> 2	"BUTTONING"	<input type="checkbox"/> 2	"BLINDNESS"
<input type="checkbox"/> 2	"RICEYNESS"	<input type="checkbox"/> 2	"WHIPTAIL"
<input type="checkbox"/> 0	INSECT (Specify) _____		

9. INDICATE A VARIETY THAT MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
MATURITY	Snowball Y Imp.	PLANT COLOR	Autumn Giant Fl. Blanca
ADAPTATION	" "	CURD SIZE	" "
PLANT HABIT	Autumn Giant Fl. Blanca	CURD SHAPE	" "
PLANT SIZE	" "	CURD COLOR	" "

REFERENCE:

Nieuwhof, M. 1969. Cole Crops - World Crop Series, Leonard Hill.

COMMENTS:

Re; question 2: actually from Late spring untill Late fall

Re; question 3: data from a febr/march sowing

Re; question 9; Character.

This is a new variety of a unique appearance, without actual comparison to varieties currently existing in the U.S.A.

Special characters are:

1. genetic pure white flowering.
2. very erect foliage.
3. providing complete curd cover.

OCT 29 1979

CERTIFICATE OF REGISTRATION

for a variety of the species: Cauliflower

De Raad voor het Kwekersrecht declares,

that on application no. G 3163

put in on 13th December 1976 at 24.00 o'clock

the hereafter described variety on 22nd May 1979

under rotationnumber 4804

and under the name Star Light

is entered in het Nederlandse Rassenregister with note of granting of breedersright

in the name of Rijk Zwaan
Zaadteelt en Zaadhandel B.V.
Postbus 40
De Lier

Wageningen, 6th June 1979.

De Raad voor het Kwekersrecht.

DESCRIPTION

Requesting authority : Raad voor het Kwekersrecht, Wageningen. Applicationnr.:G 3163

Reporting authority: RIVRO, Wageningen.

Species: Cauliflower

Provisional indication: Type 165 A

Name: Star Light

A. Characteristics, mentioned in the UPOV-guidelines TG/45/3 (dated 76.11.19)

<u>Characteristics</u>	<u>Class and code</u>	<u>Remarks</u>
1. Seedling: anthocyanin coloration	Present 9	
2. Seedling: color of cotyledon	Fairly dark green 3	
3. Plant: size (at time of harvest)	Large 7	
4. Outer stem: length	Medium 5	
5. Leaf: attitude	Erect-Semi-erect 1-2	
6. Leaf: size	Large 7	
7. Leaf: shape	Broad elliptic elliptic 2-3	
8. Leaf: margin of base	Entire 1	
9. Leaf: wax	Medium 5	
10. Leaf: color(with wax if present)	Dark green 3-5 Blue-green	Clearly blue-greener than Delira
11. Leaf: torsion of the tip	Medium 5	
13. Leaf: blistering	Weak-medium 4	
12. Leaf: profile of upperside of blade	Concave 1	Till somewhat flat (2)
14. Leaf: creasing	Medium 5	Sometimes somewhat less
15. Leaf: undulation of margin	Present 9	
16. Leaf: degree of undulation of margin	Medium 5	Sometimes somewhat stronger
17. Leaf: width of midrib	Medium-wide 6	
18. Leaf: length of petiole	Medium 5	
19. Curd: covering by inner leaves	Partly covered 2	Till freely covered
20. Curd: size	Medium 5	
21. Curd: shape in longitudinal section	Transverse elliptic 3-2 - Transverse broadelliptic	
22. Curd: doming	Strong 7	

<u>Characteristics</u>	<u>Class and code</u>	<u>Remarks</u>
23. Curd: color	white-ivory 1-2	Not covered!
24. Curd: anthocyanin coloration	present 9	
25. Curd: knobbling	medium coarse 6	
26. Curd: texture	medium 5	Till somewhat coarse
27. Curd: riceness	absent 1	
28. Curd: firmness	solid 7	
29. Flower: color	white 1	

B. Differences with corresponding varieties.

G. 3163 differs from:

- Delira, by the less stark erected leaves, the more blue-green leafcolor, less strong undulation of margin of the leaf, shorter length of petiole, less selfcovering and knobbling.
- Type 598 B (G 3162) by a larger plantsize, the somewhat more erected and larger leaves, the more blue-green leafcolor and less blistering of the leaves.

C. Further data.

G 3163 belongs to the group of middle-late varieties suitable for the summer- and early autumn culture.

The maturitytime differs a little from those of Delira, at the utmost a few days later.

Designation of colour.

for the designation of colour we have used the R.H.S. colour chart.

Upperside of leave 189 A

Bottomside of leave 191 A

Upperside of vein 157 C

Bottomside of vein 144 B